



18-529-8-1

Sheet 1 of 10
10/607,080

Form PTO-1449

ATTY. DOCKET NO.

SERIAL NO.

INFORMATION DISCLOSURE CITATION

Robert W. Allington, et al.

APPLICANT

June 25, 2003

1723

FILING DATE

GROUP

U.S. PATENT DOCUMENTS

DOCUMENT				
	NO.	PATENT NO	PATENTEE	ISSUE DATE
EGT	1.	4,087,391	Quentin, Jean	5-2-78
EGT	2.	4,430,216	Yoichiro Ito	2-7-84
EGT	3.	5,453,185	Frechet & Svec	9-26-95
EGT	4.	5,728,457	Frechet & Svec	3-17-98
EGT	5.	5,334,310	Frechet & Svec	8-2-94
EGT	6.	5,767,387	Wang	6-16-98
EGT	7.	Re. 31,974	Brownlee	8-27-85
EGT	8.	5,439,593	Price	8-8-95
EGT	9.	6,248,798 B1	Slingsby, et al	6-19-01
EGT	10.	4,283,280	Brownlee	8-11-81
EGT	11.	4,313,828	Brownlee	2-2-82
EGT	12.	4,464,240	Hansen	8-7-84

THERKORN

Feb 9, 2005



18-529-8-1

Sheet 2 of 10
10/607,080

Form PTO-1449	ATTY. DOCKET NO.		SERIAL NO.
EGT	13.	4,465,571	Hansen 8-14-84
EGT	14.	3,246,767	Pall et al. 4-19-66
EGT	15.	3,353,682	Pall et al. 11-21-67
EGT	16.	3,598,728	Bixler et al. 8-10-71
EGT	17.	3,696,061	Selsor et al. 10-3-72
EGT	18.	3,796,657	Pretorius et al. 3-12-74
EGT	19.	3,808,125	Good 4-30-74
EGT	20.	3,878,092	Fuller 4-15-75
EGT	21.	3,954,608	Valentin 5-4-76
EGT	22.	4,031,037	Kalal et al. 6-21-77
EGT	23.	4,102,746	Goldberg 7-25-78
EGT	24.	4,169,014	Goldberg 9-25-79
EGT	25.	4,340,483	Lukas et al. 7-20-82
EGT	26.	4,447,328	Kamiyama et al. 5-8-84
EGT	27.	4,486,311	Nakajima et al. 12-4-84
EGT	28.	4,497,710	Wagu et al. 2-5-85
EGT	29.	4,565,832	Kobashi et al. 1-21-86
EGT	30.	4,747,956	Kiniwa 5-31-88
EGT	31.	4,794,177	Peska et al. 12-27-88
EGT	32.	4,889,632	Svec et al. 12-26-89
EGT	33.	4,913,812	Moriguchi et al. 4-3-90

THERKORN

Feb 9, 2005



18-529-8-1

Sheet 3 of 10
10/607,080

Form PTO-1449

ATTY. DOCKET NO.

SERIAL NO.

EGT	34.	4,923,610	Svec et al.	5-8-90
EGT	35.	4,952,349	Svec et al.	8-28-90
EGT	36.	5,019,270	Afeyan et al.	5-28-91
EGT	37.	5,130,343	Frechet et al.	7-14-92
EGT	38.	5,135,650	Hjerten et al	8-4-92
EGT	39.	5,183,885	Bergot	2-2-93
EGT	40.	5,228,989	Afeyan et al.	7-20-93
EGT	41.	5,306,426	Afeyan	4-26-94
EGT	42.	5,306,561	Frechet et al.	4-26-94
EGT	43.	5,384,042	Afeyan et al.	1-24-95
EGT	44.	5,389,449	Afeyan et al.	2-14-95
EGT	45.	5,503,933	Afeyan et al.	4-2-96
EGT	46.	5,552,041	Afeyan et al.	9-3-96
EGT	47.	5,605,623	Afeyan et al.	2-25-97
EGT	48.	5,645,717	Hjerten et al.	7-8-97
EGT	49.	5,647,979	Liao et al.	7-15-97
EGT	50.	5,814,223	Hjerten et al.	9-29-98
EGT	51.	5,833,861	Afeyan et al.	11-10-98
EGT	52.	5,916,445	Hjerten et al.	6-29-99
EGT	53.	5,935,429	Liao et al.	8-10-99
EGT	54.	6,238,565 B1	Hatch	5-29-01

THE KORN

Feb 9, 2005



18-529-8-1

Sheet 4 of 10
10/607,080

Form PTO-1449

ATTY. DOCKET NO.

SERIAL NO.

<u>E6T</u>	55.	6,318,157	Corso et al.	11-20-01
<u>E6T</u>	56.	App 60/178,553	Huber, C.	

FOREIGN PATENT DOCUMENTS

DOCUMENT NO.	PUBLISHED PATENT		COUNTRY OR		TRANSLATION	
	PATENT NO.	APPLICATION NO.	DATE	PATENT OFF.	YES	NO
57	WO 95/22555	PCT/US95/01966	24.08.95	PCT	X	
58	JP 63-84641	61-228074	4-15-88	JP		X
59	0 129 295B2	84200856.7	09.11.88	EPO	X	
60	WO 89/07618	154,815	24.08.89	PCT	X	
61	0 399 318A1		12.05.90	EPO		X
62	WO 99/15024	PCT/US97/16993	01.04.99	PCT	X	
63	WO 01/93974A1	PCT/US01/18650	13.12.2001	PCT	X	
64	EP 0101982	EP19830107709	1984-03-07	EPO	X	
65	WO 01/57263A1	PCT/US01/03706	02.02.2001	PCT	X	
66	WO 00/52455	PCT/US00/05123	29.02.00	PCT	X	
67	WO 00/15321	PCT/US99/20066	01.09.99	PCT	X	
68	0 180 321A2	85306830.2	07.05.86	EPO	X	
69	DE 35 43 348 A1		11.6.87	German		X
70	DE 39 00272 A1		12.7.90	German		X
71	DE 43 34351 A1		13.4.95	German		X
72	0 264 984 A1	87201768.6	27.04.88	EPO	X	

THERKORN

Feb 9, 2005

Sheet 5 of 10

18-529-8-1

10/607,080

Form PTO-1449		ATTY. DOCKET NO.		SERIAL NO.		
73	0 282 177A2	88301278.3	14.09.88	EPO	X	
74	DE 43 33821A1		6.04.95	German		X
75	0 534 567 A2	92202942.6	31.03.93	EPO	X	
76	WO 99/44053	PCT/EP99/01391	02.09.99	PCT	X	
77	1,188,736		22.04.70	Britain	X	
78	211743		15.01.83	Czech		X
79	6,803,739 (English Translation)		10.03.91	Netherlands	X	
80	0 231 684 A186402709.9		12.08.87	EPO	X	
81	0 320 023 A288120747.6		14.06.89	EPO	X	
82	0 407 560 B190902731.0		21.06.95	EPO	X	
83	0 813 062 A297105607.2		17.12.97	EPO	X	
84	0 852 334 A197310361.7		08.07.98	EPO	X	
85	WO 90/07965	PCT/US90/00191	26.07.90	PCT	X	
86	WO 01/93974 A1	PCT/US01/18650	13.12.2001	PCT	X	
87	WO 00/15778	PCT/US99/20596	23.03.00	PCT	X	

OTHER DOCUMENTS (Including Author, Title, Date Pertinent Pages, Etc.)

EXAMINER
INITIALS88 "Monolithic Matrix Accelerates Separation", HIGH TECH SEPARATIONS
NEWS, July 2001, Volume 14, No. 2

THERKORN

Feb 9, 2005



18-529-8-1

10/607,080

Form PTO-1449

ATTY. DOCKET NO.

SERIAL NO.

- 89 "Rapid reversed-phase separation of proteins and peptides using optimized 'moulded' monolithic poly(styrene-co-divinylbenzene) columns", JOURNAL OF CHROMATOGRAPHY A, 865 (1999) pg 169-174
- 90 Poster Presentation "Macroporous Poly(Styrene-co-Divinyl-benzene) Monoliths for High Throughput Reversed-Phase Separation of Biomolecules", 217th ACS National Meeting in Anaheim, March 21, 1999 by Shaofeng Xie
- 91 Poster Presentation "Monolithic Macroporous Poly(Styrene-co-Divinylbenzene) Columns for Rapid or High Throughput Reversed-Phase Separation of Proteins and Peptides", PREP'99- 1999 International Symposium, San Francisco, May 26, 1999, by Shaofeng Xie
- 92 Poster No. 1659P Presentation "High-Speed Bioseparation with Monolithic Columns", Poster No. 1659P, Bioanalytical Separation Session, PITTCON2001, New Orleans, March 5, 2001, by Shaofeng Xie
- 93 Poster Presentation "Applications of Polymeric Monolith Columns for Fast Bioseparations", Presented at ISPPP2000, Ljubiana, Slovenia, by Shaofeng Xie, et al
- 94 Poster Presentation "High Throughput Bioseparations in Monolithic Ion Exchangers", presented at HPLC2000, Seattle, WA by Shaofeng Xie, et al.
- 95 2106P Poster Presentation "Rapid Bio-separations in Columns with Monolithic Separation Media", at Pittcon 2000, New Orleans, LA, by S. Xie, et al.
- 96 "Carbonate Mysteries", Henry Elderfield; *Science*, Vol. 296, May 31, 2002, 1618 - 1621
- 97 L.R. Snyder, J.J. Kirkland, *Introduction to Modern Liquid Chromatography, Second Edition*, John Wiley & Sons, Inc., (1979) 183-195, 203-204, 492-494
- 98 "High-performance liquid chromatography on continuous polymer beds", S. Hjerten, J-L Liao, and R. Zhang, *J. Chromatogr.*, 473 (1989) 273-275

THERKOR

Feb 9, 2005



18-529-8-1

Sheet 7 of 10
10/607,080

Form PTO-1449

ATTY. DOCKET NO.

SERIAL NO.

99 "Reactive polymers: 61. Reaction of macroporous poly(glycidyl methacrylate-co-ethylene dimethacrylate) with phenol", D. Horak, J. Straka, J. Stokr, B. Schneider, T.B. Tennikova and F. Svec, *Polymer*, 32, no. 6 (1991) 1135-1139

100 "REACTIVE POLYMERS, XXV. Morphology of Polymeric Sorbents Based on Glycidyl Methacrylate Copolymers", Z. Pelzbauer, J. Lukas, F. Svec and J. Kalal, *J. Chromatogr.*, 171 (1979) 101-107

101 "Chiral electrochromatography with a 'moulded' rigid monolithic capillary column", E.C. Peters, K. Lewandowski, M. Petro, F. Svec and J.M.J. Frechet, *Analy. Commun.*, 35 (1998) 83-86

102 "High-Performance Membrane Chromatography. A Novel Method of Protein Separation", T.B. Tennikova, B.G. Belenkii, and F. Svec, *J. of Liquid Chromatogr.*, 13(1) (1990) 63-70

103 "Continuous beds for standard and micro high-performance liquid chromatography", Jia-Li Liao, Rong Zhang and Stellan Hjerten, *J. of Chromatography*, 586 (1991) 21-26

104 "Continuous Beds for Microchromatography: Reversed-Phase Chromatography", Jia-Li Liao, Yi-Ming Li, and Stellan Hjerten, *Analytical Biochemistry*, 234 (1996) 27-30, #1

105 "Continuous Beds for Microchromatography: Detection of Proteins by a Blotting Membrane Technique", Jia-Li Liao, Cheng-Ming Zeng, Anders Palm and Stellan Hjerten, *Analytical Biochemistry*, 241 (1996) 195-198

106 "High-Performance Liquid Chromatography of Proteins on Compressed, Non-Porous Agarose Beads", Stellan Hjerten and Jia-Li Liao, *J. of Chromatography*, 457 (1988) 165-174

107 "The Design of Agarose Beds for High-Performance Hydrophobic-Interaction Chromatography and Ion-Exchange Chromatography Which Show Increasing Resolution with Increasing Flow Rate", Stellan Hjerten, Yao Kunquan and Jia-Li Liao, *Makromol. Chrm., Macromol. Symp.* 17 (1988) 349-357

108 J. Reusch, D. Josic, *Konigsteiner Chromatographietage* (1991) page 158

THERKORN

Feb 9, 2005



18-529-8-1

Sheet 8 of 10
10/607,080

Form PTO-1449

ATTY. DOCKET NO.

SERIAL NO.

- 109 "Perfusion chromatography packing materials for proteins and peptides", N.B. Afeyan and S.P. Fulton, *J. of Chromatography*, 544 (1991) 267-279
- 110 "Flow-through particles for the high-performance liquid chromatographic separation of biomolecules: perfusion chromatography", N.B. Afeyan, N.F. Gordon, I. Mazsaroff, L. Varady and S.P. Fulton, *J. Chromatography*, 519 (1990) 1-29
- 111 "In Situ Preparation and Evaluation of Open Pore Polyurethane Chromatographic Columns", F.D. Hileman and R.E. Sievers, *Analytical Chemistry*, V. 45 no. 7 (1973) 1126-1130
- 112 "High Resolution-Low Pressure Liquid Chromatography", T.R. Lynn, D.R. Rushneck, A.R. Cooper, *J. Chromatographic Science*, 12 (1974) 76-79
- 113 "Surface Modified Open-Pore Polyurethane Packings for Liquid Chromatography", D.P. Herman and L.R. Field, *J. Chromatographic Science*, 20 (1982) 55-61
- 114 "Polyurethane Foams and Microspheres in Analytical Chemistry", T. Braun and A.B. Farag, *Analytica Chimica Acta*, 99 (1978) 1-36
- 115 "Coiled High-Efficiency Liquid Chromatography Columns", A.R. Cooper and T.R. Lynn, *Separation Science*, 11(1) (1976) 39-44
- 116 "Ion Chromatography on Methacrylate Ion Exchangers", J. Hradil and F. Svec, *J. of Chromatography*, 475 (1989) 209-217
- 117 "Open-Pore Polyurethane Columns for Collection and Preconcentration of Polynuclear Aromatic Hydrocarbons from Water", James D. Navratil, Robert E. Sievers and Harold Walton, *Analytical Chemistry*, 49(14) (1971) 2260-2263
- 118 "Chemical separations with open-pore polyurethane", James D. Navratil and Robert E. Sievers, *American Lab.* 9(10) (1977) 38-42
- 119 "Open Pore Polyurethane - A New Separation Medium", William D. Ross, *Separation and Purification Methods* 3(1) (1974) 111-131

THERKORV

Feb 9, 2005



18-529-8-1

Sheet 9 of 10
10/607,080

Form PTO-1449

ATTY. DOCKET NO.

SERIAL NO.

- 120 "In Situ -- Formed Open-Pore Polyurethane as Chromatography Supports", William D. Ross and Robert T. Jefferson, *J. of Chromatographic Science*, 8 (1970) 386-389
- 121 "In Situ Open-Pore Polyurethane as Chromatography Supports", William D. Ross and Robert T. Jefferson, *Advan. Chromatogr. Proc. Int'l Symp. 6th*, (1970)
- 122 "39. Preparation and Properties of Open Pore Polyurethane", I.O. Salyer, R.T. Jefferson, J.V. Pustinger and J.L. Schwendeman, *163rd National ACS Meeting, Boston, MA* (April, 1972)
- 123 "Preparation and Properties of Open Pore Polyurethane (OPP)", Ival O. Salyer, R.T. Jefferson, John V. Pustinger and James L. Schwendeman, *J. of Cellular Plastics*, 9 (1973) 25-34
- 124 "Applications of Porous Urea/Formaldehyde Polymers", A.M. Usmani, *J. Macromol. Sci.-Chem.*, A19(8&9) (1983) 1237-1246
- 125 Brochure: "Quick Disk", Saulentechnik/Knauer
- 126 Advertisement: "ConSep™", Millipore Corp., *Genetic Engineering News*, Sept. 15, 1993
- 127 Brochure: "ConSep™ LC 100 System", Millipore Corp.
- 128 Brochure: "MemSep® Chromatography Cartridges", Millipore Corp.
- 129 "High-Performance Liquid Chromatography-Electrospray Ionization Mass Spectrometry of Single- and Double-Stranded Nucleic Acids Using Monolithic Capillary Columns", Premstaller, Oberacher, Huber, *ANALYTICAL CHEMISTRY*, Vol. 72, No. 18, 4386-4393
- 130 "Urea-formaldehyde resin monolith as a new packing material for affinity chromatography", Xuefei Sun, Zhikuan Chai; *JOURNAL OF CHROMATOGRAPHY A*, 943 (2002) 209-218
- 131 "From Microspheres to monoliths: Synthesis of porous supports with tailored properties by radiation polymerization", Grasselli, Smolko, Hargittai, Safrany, *NUCLEAR INSTRUMENTS AND METHODS IN PHYSICS RESEARCH B* 185 (2001) 254-261

THERKOE

Feb 9, 2005



18-529-8-1

Sheet ~~8~~ ¹⁰ of ~~10~~ ¹⁰
10/607,080

Form PTO-1449

ATTY. DOCKET NO.

SERIAL NO.

~~132 "Polymer Reprints", C.H. Do, G.B. Butler, AMERICAN CHEMICAL SOCIETY,
DIVISION OF POLYMER CHEMISTRY, Vol. 29 (1988), 513-514~~

~~133 "Functional Polymeric Microspheres Synthesized by Radiation
Polymerization", A. Safran, S. Kano, M. Yoshida, H. Omichi, R. Katakai, M.
Suzuki; *Radiat. Phys. Chem.*, Volume 46, No. 2 (1995) 203-206~~

~~134 "Viscometric and Light Scattering Studies on Microgel Formation by γ -Ray
Irradiation to Aqueous Oxygen-free Solutions of Poly(vinyl alcohol)", B.
Wang, S. Mukataka, M. Kodama, E. Kokufuta; *Langmuir*, Volume 13 (1997)
6108-6114~~

THELXDR
EXAMINER

Feb 9, 2005
DATE CONSIDERED